Figure 1:

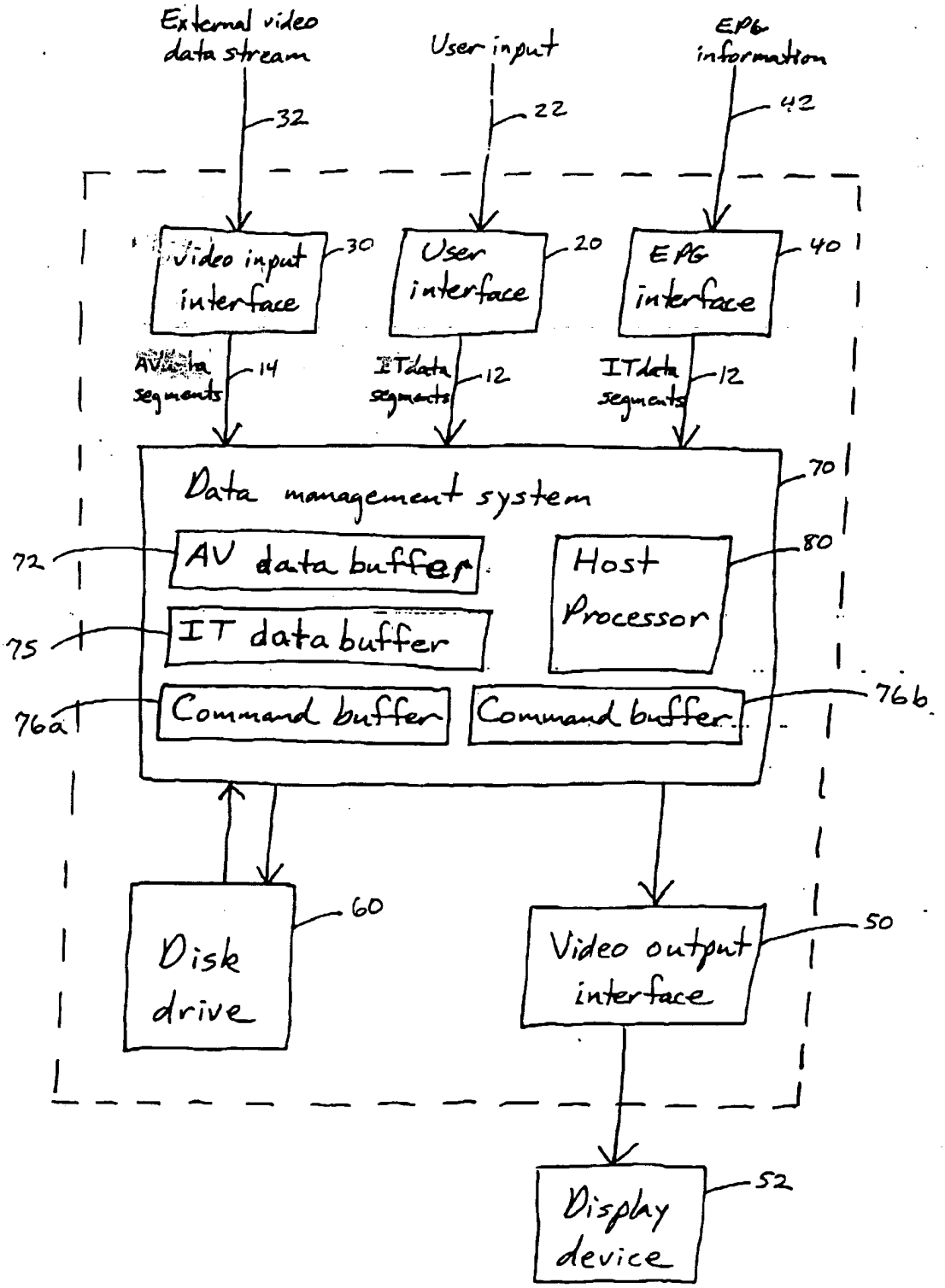
External video data stream
User input
EPG information
32
22
42
10
Video input interface
30
User interface
20
EPG interface
40
AV data segments
14
IT data segments
12
IT data segments
12
Data management system
70
72
AV data buffer
Host Processor
80
75
IT data buffer
76a
Command buffer
Command buffer
76b
Disk drive
60
Video output interface
50
Display device
52

Figure 2a:

Figure 2b:

Figure 2c:

Figure 2d:

Figure 2e:

Figure 3a:

Figure 3b:

Figure 3c:

Figure 4:

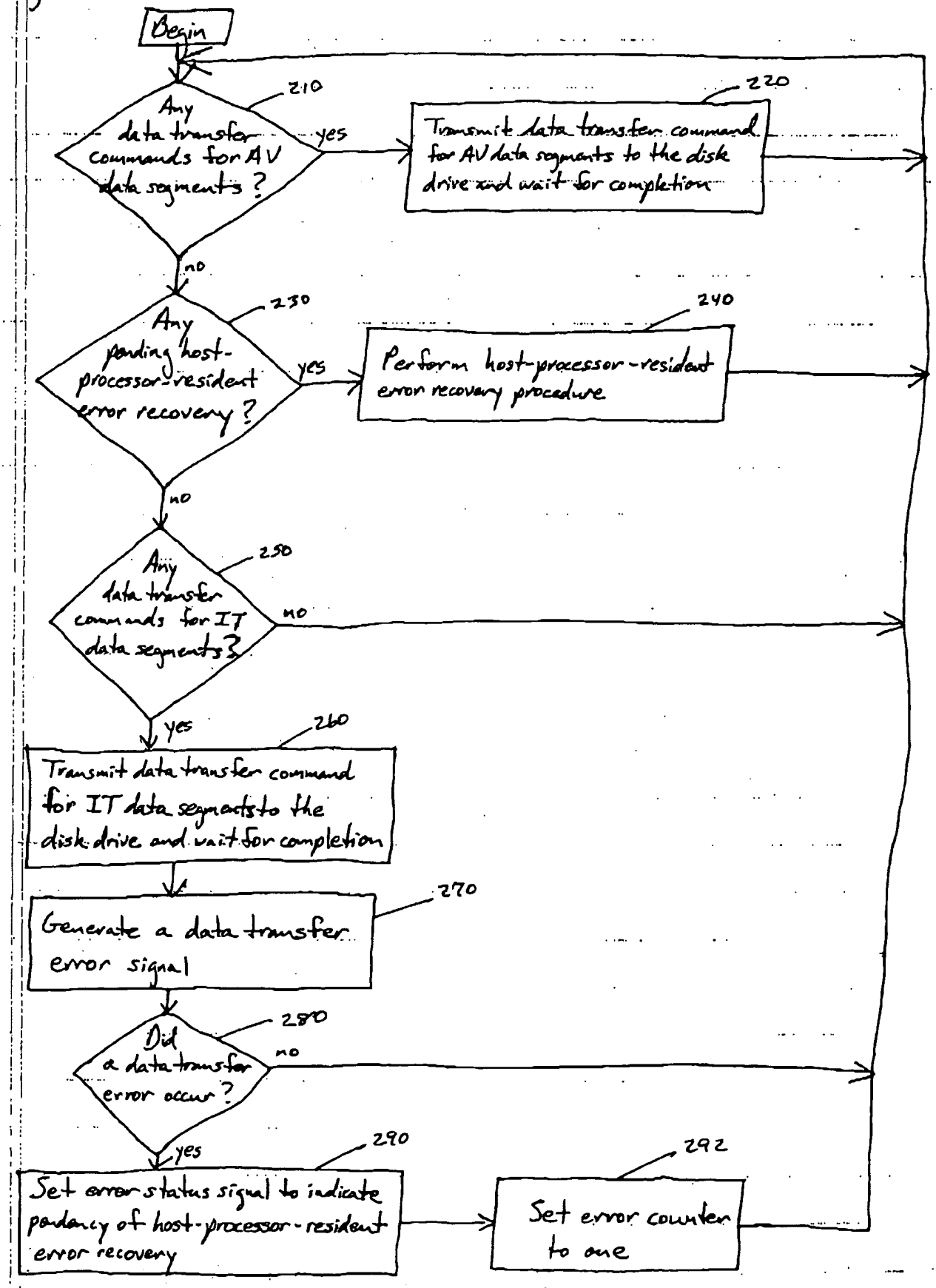
Begin
210
Any data transfer commands for AV data segments?
yes
220
Transmit data transfer command for AV data segments to the disk drive and wait for completion
no
230
Any pending host-processor-resident error recovery?
yes
240
Perform host-processor-resident error recovery procedure
no
250
Any data transfer commands for IT data segments?
no
yes
260
Transmit data transfer command for IT data segments to the disk drive and wait for completion
270
Generate a data transfer error signal
280
Did a data transfer error occur?
no
yes
290
Set error status signal to indicate pendancy of host-processor-resident error recovery
292
Set error counter to one

Figure 5:

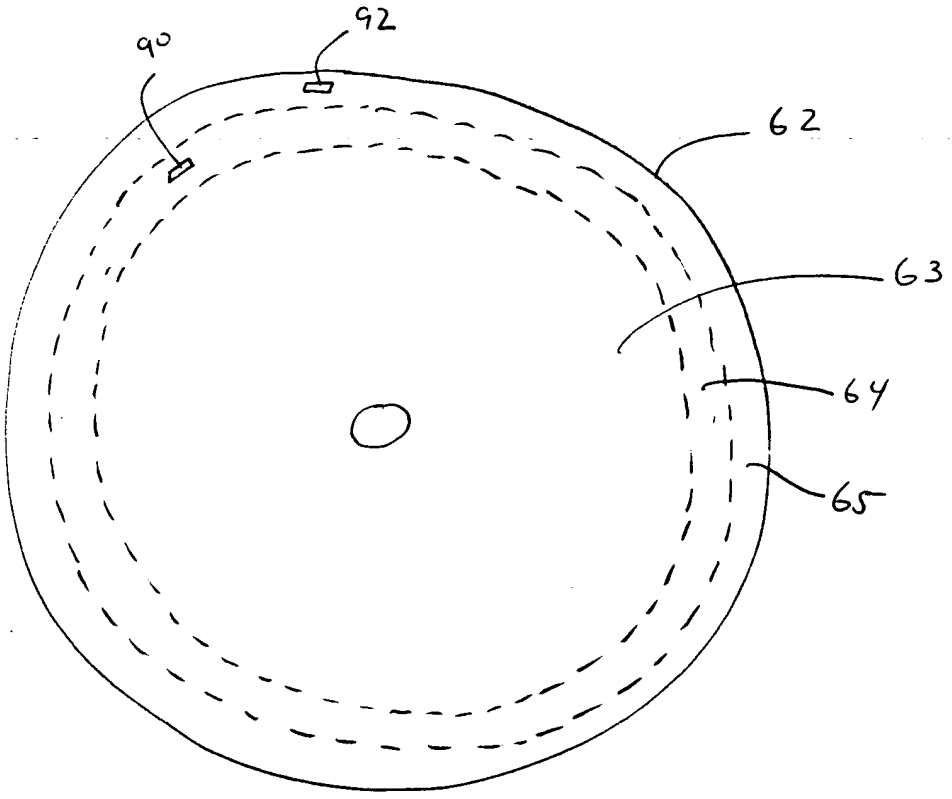

Figure 6:

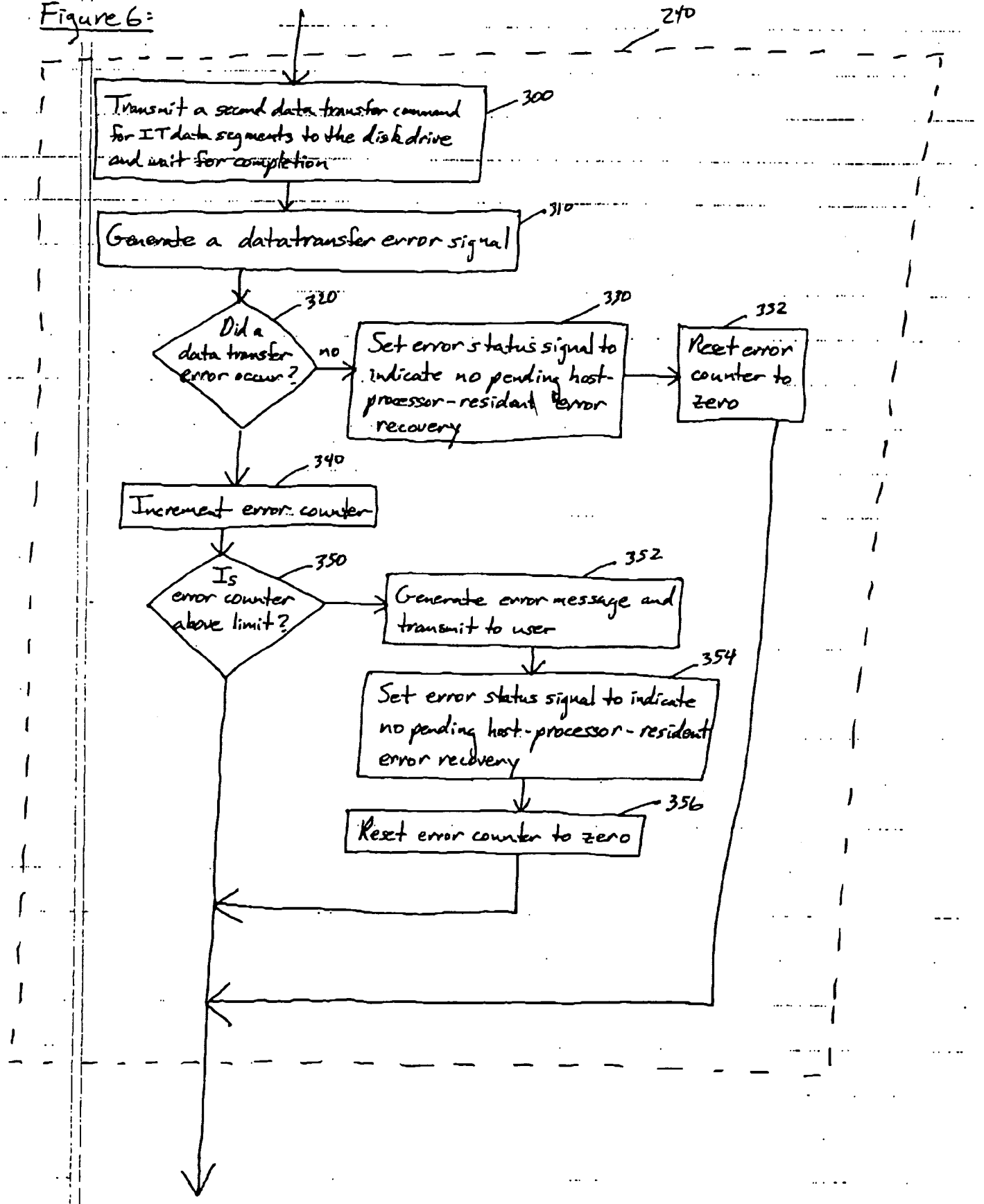
240
Transmit a second data transfer command for IT data segments to the disk drive and wait for completion
300
Generate a data transfer error signal
310
Did a data transfer error occur?
320
no
Set error status signal to indicate no pending host-processor-resident error recovery
330
Reset error counter to zero
332
Increment error counter
340
Is error counter above limit?
350
Generate error message and transmit to user
352
Set error status signal to indicate no pending host-processor-resident error recovery
354
Reset error counter to zero
356

Figure 7a:

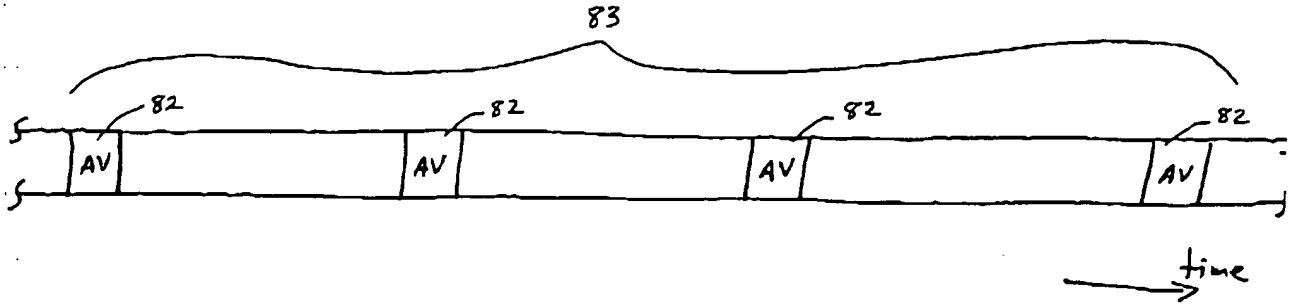

Figure 7b:

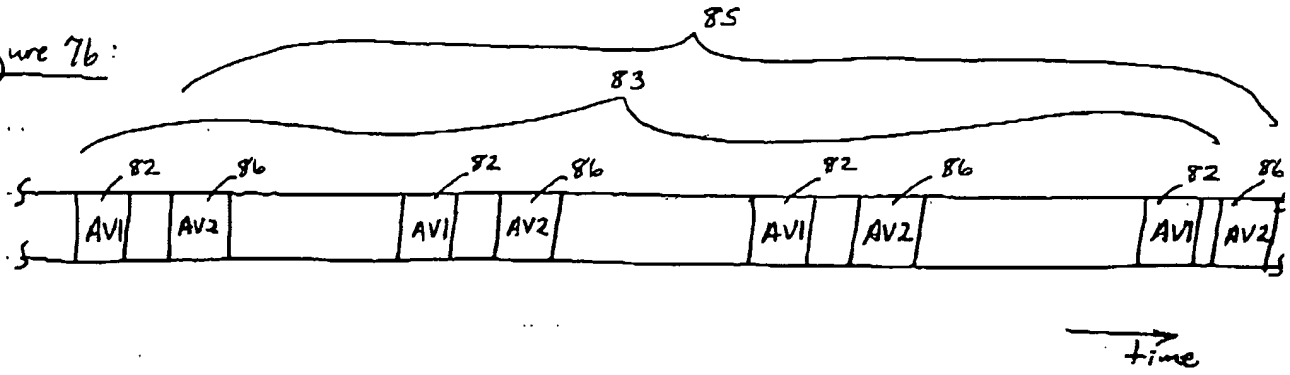
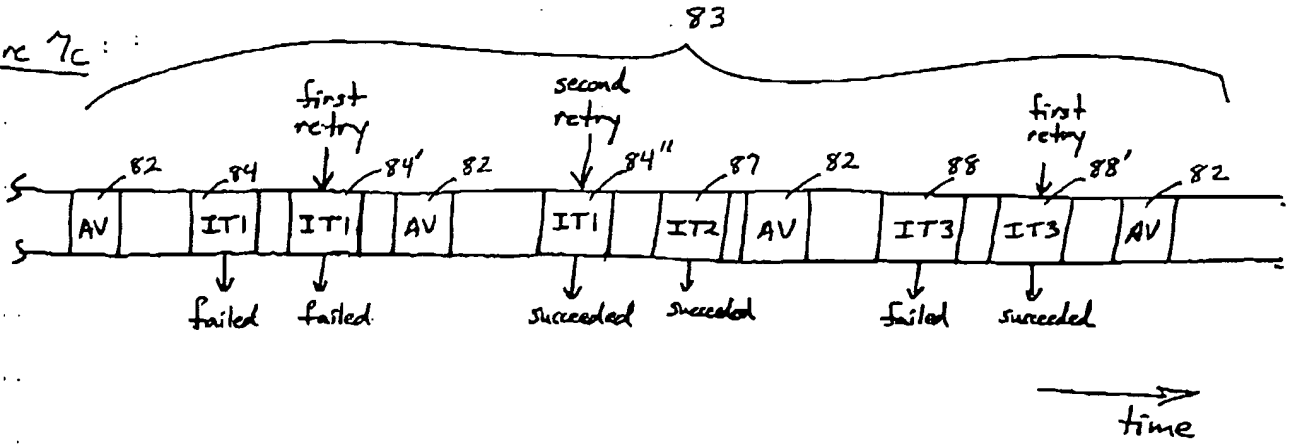
Figure 7c: